UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,029	11/04/2003	Brian Grove	G&C 30074.50-US-U1	6164

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EXAMINER
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ART UNIT	PAPER NUMBER
2136	

MAIL DATE	DELIVERY MODE
12/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/701,029	GROVE ET AL.
		Examiner	Art Unit	
		Eleni A. Shiferaw	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 September 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>34-78</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>34-78</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>04/30/2004</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 34-78 are presented for examination, claims 1-33 are non-elected and/or canceled.

Election/Restrictions

2.   Claims 1-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as

being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 09/28/2007.

Claim Objections

Claim 34 is objected to because of the following informalities: The claim recites "the

steps of" on line 2. However there is no "steps of" mentioned before that line.   Appropriate

correction is required in the next office action to avoid antecedent bases problem.

Claim 64 is objected to because of the following informalities: On lines 2 and 4, the

claim recites "a memory". The examiner thinks the applicant "a memory" on line 4 is referring to

"a memory" on line 2. Appropriate correction is required in the next office action to avoid

antecedent bases problem.

Claims 34, 49, and 64 are objected to because of the following informalities: the claims

preamble recites "A method/apparatus of/for authenticating", but body of the claims only states

steps of retrieving, generating and transmitting, but not the steps of authentication. Appropriate

correction is required in the next office action.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 34-35, 38-44, 49-50, 53-59, 64-65, and 68-74 are rejected under 35 U.S.C. 102(b)

as being anticipated by Iijima USPN 5225664.

Regarding claims 34, 49 and 64, Iijima discloses a method/apparatus of authenticating a

hardware token (*IC card 1*) for operation with a host (*terminal device 8*), comprising the steps of:

retrieving a value X (col. 42-64; *C2X*) from a memory accessible to an authenticating

entity, the value X generated from a fingerprint F of the host (col. 3 lines 64-67) and an identifier

P securing access to the token (col. 4 lines 42-49 and lines 21-26, ; *random number...card

number/SN*);

generating the identifier P at least in part from the value X and the fingerprint F (col. 4

lines 55-63 and lines 42-49; *C2*); and

transmitting the identifier P to the token (col. 4 lines 64).

Regarding claims 35, 50 and 65, Iijima discloses the method/apparatus, wherein the host

fingerprint F is computed at least in part from host information C (col. 3 lines 64-67).

Regarding claims 38, 53 and 68, Iijima discloses the method/apparatus, wherein the value X is

computed in the token (col. 4 lines 42-49).

Regarding claims 39, 54 and 69, Iijima discloses the method/apparatus, wherein the value X is computed according to $X=f(P,F)$, wherein $f(P,F)$ is a reversible function such that $f(f(P,F),F)=P$ (col. 3 lines 56-col. 4 lines 64).

Regarding claims 40, 55 and 70, Iijima discloses the method/apparatus, wherein $f(P,F)$ comprises P XOR F (col. 3 lines 56-col. 4 lines 64).

Regarding claims 41, 56 and 71, Iijima discloses the method/apparatus, wherein the value X is further computed at least in part from a user identifier U (col. 2 lines 43-62).

Regarding claims 42, 57 and 72, Iijima discloses the method/apparatus, wherein the value X is computed according to $X=f(P,U,F)$, wherein $f(P,U,F)$ is a reversible function such that $f(f(P,U,F),U,F)=P$ (col. 3 lines 56-col. 4 lines 64).

Regarding claims 43, 58 and 73, Iijima discloses the method/apparatus, wherein $f(P,U,F)$ is P XOR U XOR F (col. 3 lines 56-col. 4 lines 64).

Regarding claims 44, 59 and 74, Iijima discloses the method/apparatus, wherein: the authorizing entity is a host computer communicatively coupleable to the token; and the value X is stored in the host computer (fig. 1 elements 1 and 8).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 45-48, 60-63, and 75-78 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Iijima USPN 5225664 in view of Miura USPN 6952775 B1.

Regarding claims 45, 60 and 75, Iijima fails to disclose hashing. However Miura discloses the

method/apparatus of IC card 103 authentication (see fig. 1) and the authentication comprising

hashing multiple entity's personal information (see fig. 6-7), storing the computed hash value

(col. 2 lines 64-col. 3 lines 7). Therefore it would have been obvious to one having ordinary skill

in the art at the time of the invention was made to modify the teachings of Miura within the

system of Iijima to compute a hash value of value x because computing a hash value of

authenticating data is well known at the time of the invention for authentication.

Regarding claims 46, 61 and 76, Miura discloses the method/apparatus of IC card 103

authentication (see fig. 1) and the authentication comprising hashing multiple entity's personal

information (see fig. 6-7), storing the computed hash value (col. 2 lines 64-col. 3 lines 7).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the

invention was made to modify the teachings of Miura within the system of Iijima to compute a

hash value of in part from the fingerprint F; and retrieving the value X associated with the

reference value H because computing a hash value of authenticating data is well known at the

time of the invention for authentication.

Regarding claims 47, 62 and 77, Miura discloses the method/apparatus of IC card 103

authentication (see fig. 1) and the authentication comprising hashing multiple entity's personal

information (see fig. 6-7), storing the computed hash value (col. 2 lines 64-col. 3 lines 7).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the

invention was made to modify the teachings of Miura within the system of Iijima to compute a

hash value of in part from the fingerprint F; and retrieving the value X associated with the

reference value H because computing a hash value of authenticating data is well known at the

time of the invention for authentication. .

Regarding claims 48, 63 and 78, Miura discloses the method/apparatus of IC card 103

authentication (see fig. 1) and the authentication comprising hashing multiple entity's personal

information (see fig. 6-7), storing the computed hash value (col. 2 lines 64-col. 3 lines 7).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the

invention was made to modify the teachings of Miura within the system of Iijima to compute a

hash value of in part from the fingerprint F; and retrieving the value X associated with the

reference value H because computing a hash value of authenticating data is well known at the

time of the invention for authentication.

7.   Claims 36-37, 51-52, and 66-67 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Iijima USPN 5225664 in view of Ayyagari et al. 2003/0208677.

Regarding claims 36, 51 and 66, Iijima teaches wherein the host fingerprint F is

computed at least in part from host information C (see col. 3 lines 56-col. 4 lines 64) but fails to

disclose wherein the host fingerprint F is computed at least in part from a server specific value V.

However Ayyagari et al. discloses identifier information comprising a concatenated hardware

address of the access server and a hardware address of a client. There fore it would have been

obvious to one having ordinary skill in the art at the time of the invention was made to modify

the teachings of Ayyagari et al. with in the Iijima system because they are analogous in

authentication. One would have been motivated to incorporate the teachings to include the

remote server within the authentication.

Regarding claims 37, 52 and 67, Iijima teaches wherein the host fingerprint F is computed at

least in part from host information C and a fixed string Z (see col. 3 lines 56-col. 4 lines 64) but

fails to disclose wherein the host fingerprint F is computed at least in part from a server specific

value V and a fixed string Z. However Ayyagari et al. discloses identifier information

comprising a concatenated hardware address of the access server and a hardware address of a

client. There fore it would have been obvious to one having ordinary skill in the art at the time of

the invention was made to modify the teachings of Ayyagari et al. with in the Iijima system

because they are analogous in authentication. One would have been motivated to incorporate the

teachings to include the remote server within the authentication.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

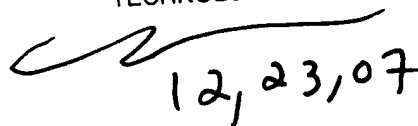examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867.

The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 18, 2007

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12,23,07